

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)

2. (Currently Amended) The ~~compound~~ method of claim 20 ~~1~~, wherein each R^4 is independently

- (a) H,
- (b) halo,
- (c) SR^{12} ,
- (d) $S(O)_mR^{13}$,
- (e) NR^9R^{10} ,
- (f) $NR^9S(O)_mR^{13}$,
- (g) $NR^9C(=O)OR^{13}$,
- (h) phenyl optionally substituted by one or more R^8 ,
- (i) heteroaryl optionally substituted by one or more R^8 ,
- (j) cyano,
- (k) nitro,
- (l) $CONR^9R^{10}$,
- (m) CO_2R^{12} ,
- (n) $C(=O)R^{13}$,
- (o) $C(=NOR^{12})R^{13}$,
- (p) $NR^9C(=O)-R^{12}$,
- (q) C_{1-7} alkyl, C_{1-7} alkenyl or C_{1-7} alkynyl each of which is optionally partially unsaturated and is optionally substituted by one or more R^{11} , or
- (r) het^1 optionally substituted by one or more R^8 .

3. (Currently Amended) The ~~compound~~ method of claim 2, wherein each R^4 is independently selected from NO_2 , H, Br, F, CF_3 , CN, NH_2 , $-C(O)-OCH_3$, $-S-CH_3$, $-S(O)_2-CH_3$, $-N(OCH_3)-CH_3$, $-NH-C(O)-O-tbutyl$, $-NH-C(O)-CH_3$, heteroaryl optionally

substituted by one or more R^8 , het¹ optionally substituted by one or more R^8 , $-S(O)_2-CH_3$, or phenyl optionally substituted by one or more of NO_2 , Cl, F, $-OCH_3$, and $-OCF_3$.

4. (Currently Amended) The ~~compound~~ method of claim 20 ~~4~~, wherein each R^3 is H.

5. (Currently Amended) The ~~compound~~ method of claim 20 ~~4~~, wherein R^1 is $-C(O)R^6$.

6. (Currently Amended) The ~~compound~~ method of claim 20 ~~4~~, wherein R^2 is $-C(O)R^7$.

7. (Currently Amended) The ~~compound~~ method of claim 6, wherein R^1 is $-C(O)R^6$.

8. (Currently Amended) The ~~compound~~ method of claim 7, wherein R^6 and R^7 form $-N(R^{17})-C(O)-N(R^{17})-$ or $-N(R^{17})-C(S)-N(R^{17})-$.

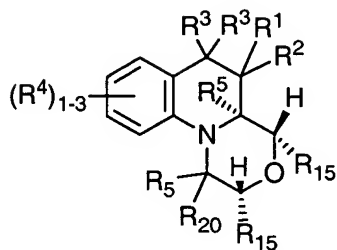
9. (Canceled)

10. (Canceled)

11. (Currently Amended) The ~~compound~~ method of claim 20 ~~40~~, wherein each R^{15} is independently H, C_{1-7} alkyl optionally substituted by one or more R^{11} substituents.

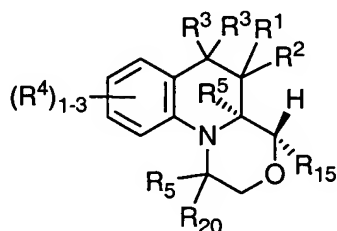
12. (Currently Amended) The ~~compound~~ method of claim 11, wherein X is $-C(H)(C_{1-4} \text{ alkyl})-O-C(H)(C_{1-4} \text{ alkyl})-$.

13. (Currently Amended) The ~~compound~~ method of claim 20 ~~40~~, wherein the compound has the formula of



and each R_{15} is independently (b), (c), (d), (e), (f), or (g).

14. (Currently Amended) The ~~compound~~ method of claim ~~20~~ 10, wherein the compound has the formula of



and each R_{15} is independently (b), (c), (d), (e), (f), or (g).

15. (Currently Amended) The ~~compound~~ method of claim ~~20~~ 10, wherein R^{16} is $(C=O)OR^{13}$ or C_{1-7} alkyl.

16. (Currently Amended) The ~~compound~~ method of claim ~~20~~ 1, wherein each R^5 is independently H or C_{1-7} alkyl.

17. (Currently Amended) ~~A~~ The method of claim 20 wherein the compound comprises selected from

(2R,4S,4aS)-2,4-dimethyl-8-nitro-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione;

1,2,4,4a-Tetrahydro- 2,4-dimethylspiro[[1,4]oxazino[4,3-a]quinoline-5(6H), 5' (2' H)-pyrimidine]-2',4',6' (1' H,3' H)-trione;

8-Bromo-1,2,4,4a-tetrahydro-2,4-dimethylspiro[[1,4]oxazino[4,3-a]quinoline-5(6H), 5' (2' H)-pyrimidine]-2',4',6' (1' H,3' H)-trione;

8-Fluoro-1,2,4,4a-tetrahydro-2,4-dimethylspiro[[1,4]oxazino[4,3-a]quinoline-5(6H), 5' (2' H)-pyrimidine]-2',4',6' (1' H,3' H)-trione;

1,2,4,4a-Tetrahydro-2,4-dimethyl-8-trifluoromethylspiro[[1,4]oxazino[4,3-a]quinoline-5(6H), 5' (2' H)-pyrimidine]-2',4',6' (1' H,3' H)-trione;

1,1',2,3',4,4',4a,6'-Octahydro-2,4',6'-trioxospiro[[1,4]oxazino[4,3-a]quinoline-5(6H), 5' (2' H)-pyrimidine]-8-carbonitrile;

1,2,4,4a-Tetrahydro-2,4-dimethyl-8-carboxamidespiro[[1,4]oxazino[4,3-a]quinoline-5(6H), 5' (2' H)-pyrimidine]-2',4',6' (1' H,3' H)-trione;

1,2,4,4a-Tetrahydro-8-nitrospiro[[1,4]oxazino[4,3-a]quinoline-5(6H), 5' (2' H)-pyrimidine]-2',4',6' (1' H,3' H)-trione;

1,2,4,4a-Tetrahydro-2,4-dimethylspiro[[1,4]oxazino[4,3-a]quinoline-5(6H), 5' (2' H)-pyrimidine]-2',4',6' (1' H,3' H)-trione;

1,2,4,4a-Tetrahydro-1,4a-dimethyl-8-nitrospiro[[1,4]oxazino[4,3-a]quinoline-5(6H), 5' (2' H)-pyrimidine]-2',4',6' (1' H,3' H)-trione;

8-Bromo-1,2,4,4a-tetrahydro-cis-2,4-dimethylspiro[[1,4]oxazino[4,3-a]quinoline-5(6H), 5' (2' H)-pyrimidine]-4'-thioxo-2',6' (1' H,3' H)-dione;

8-Bromo-1,2,4,4a-tetrahydro-cis-2,4-dimethylspiro[[1,4]oxazino[4,3-a]quinoline-5(6H), 5' (2' H)pyrimidine]-2',4',6' (1' methyl, 3' methyl)-trione;

N-[1,1',2,3',4,4',4a,6'-Octahydro-2,4-dimethyl-2',4',6'-trioxospiro[[1,4]oxazino[4,3-a]quinolone-5(6H),5'(2' H)-pyrimidin]-8-yl]acetamide;

tert-butyl 1,1',2,3',4,4',4a,6'-Octahydro-2,4-dimethyl-2',4',6'-trioxospiro[[1,4]oxazino[4,3-a]quinolone-5(6H),5'(2' H)-pyrimidin]-8-ylcarbamate;

8-Amino-1,2,4,4a-tetrahydro-2,4-dimethylspiro[[1,4]oxazino[4,3-a]quinolone-5(6H),5'(2' H)-pyrimidine]-2',4',6' (1' H,3' H)-trione monohydrochloride;

9-Bromo-1,2,4,4a-tetrahydro-2,4-dimethyl-8-nitrospiro[[1,4]oxazino[4,3-a]quinoline-5(6H), 5' (2' H)-pyrimidine]-2',4',6' (1' H,3' H)-trione;

8-Acetyl-1,2,4,4a-tetrahydro-2,4-dimethylspiro[[1,4]oxazino[4,3-a]quinoline-5(6H),5'(2H)-pyrimidine]-2',4',6' (1' H,3' H)-trione;

8-Ethanone-O-methyloxime-1-1,2,4,4a-tetrahydro-2,4-dimethylspiro[[1,4]oxazino[4,3-a]quinoline-5(6H),5'(2H)-pyrimidine)-2',4',6' (1' H,3' H)-trione;

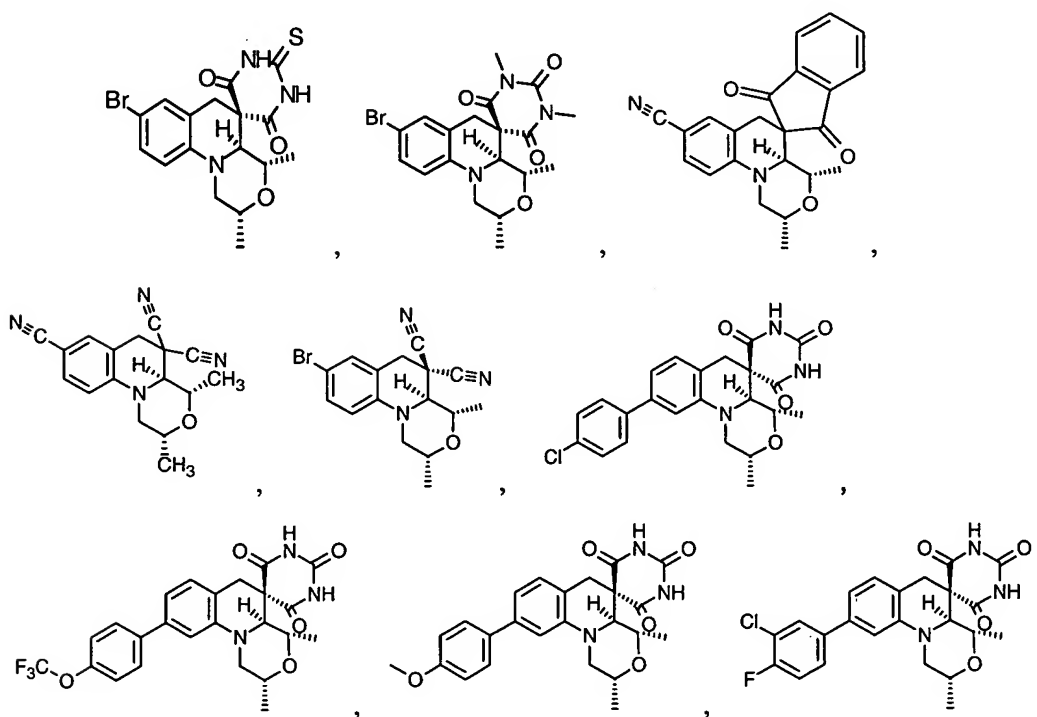
1,2,4,4a-Tetrahydro-2,4-dimethyl-8-(methylsulfonyl)spiro[[1,4]oxazino [4,3-a]quinoline-5(6H),5'(2' H)-pyrimidine]-2',4',6' (1' H,3' H)-trione;

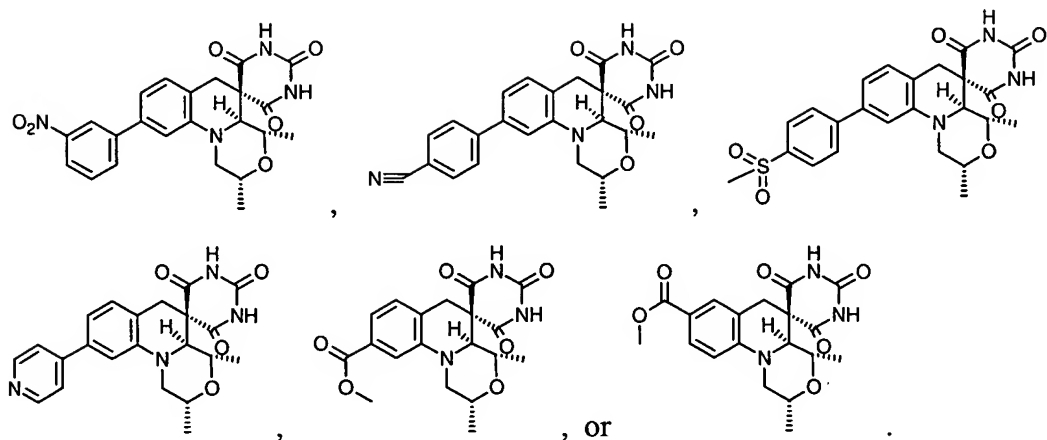
- 1,2,4,4a-Tetrahydro-2,4-dimethyl-8-(methylsulfinyl)spiro[[1,4]oxazino [4,3-a]quinoline-5(6*H*),5'(2'*H*)-pyrimidine]-2',4',6'(1'*H*,3'*H*)-trione;
- 1,2,4,4a-Tetrahydro-2,4-dimethyl-8-(methylthio)spiro[[1,4]oxazino[4,3-a]quinoline-5(6*H*),5'(2'*H*)-pyrimidine]-2',4',6'(1'*H*,3'*H*)-trione;
- 1,2,4,4a-Tetrahydro-2,4-dimethyl-9-nitrospiro[[1,4]oxazino[4,3-a]quinoline-5(6*H*),5'(2'*H*)-pyrimidine]-2',4',6'(1'*H*,3'*H*)-trione;
- 1,2,4,4a-Tetrahydro-2,4-dimethyl-8-nitrospiro[[1,4]oxazino[4,3-a]quinoline-5(6*H*),5'(2'*H*)-pyrimidine]-2',4',6'(1'*methyl*,3'*methyl*)-trione;
- 1,2,4,4a-Tetrahydro-2,4-dimethyl-8-nitrospiro[[1,4]oxazino[4,3-a]quinoline-5(6*H*),5'(2'*H*)-pyrimidine]-2',4',6'(1'*H*, 3'*methyl*)-trione;
- 1,2, 4,4a-Tetrahydro-4-methyl-8-nitrospiro[[1,4]oxazino[4,3-a]quinoline-5(6*H*),5'(2'*H*)-pyrimidine]-2',4',6'(1'*H*,3'*H*)-trione;
- 1,2,4,4a-Tetrahydro-2-methyl-8-nitrospiro[[1,4]oxazino[4,3-a]quinoline-5(6*H*),5'(2'*H*)-pyrimidine]-2',4',6'(1'*H*,3'*s*)-trione;
- 1,1',2'3'4'4'a-Hexahydro-2',4'-dimethyl-1,3-dioxospiro[2*H*-indene-2,5'(6'*H*)-[1,4]oxazino[4,3-*a*]quinoline]-8'-carbonitrile;
- 1,2,4,4a-Tetrahydro-2,4-dimethyl[1,4]oxazino[4,3-*a*]quinoline-5,5,8(6*H*)-tricarbonitrile;
- 8-Bromo-1,2,4-4a-tettrhydro-2,4-dimethyl[1,4]oxazino[4,3-*a*]quinoline-5,5(6*H*)-dicarbonitrile;
- 9-(4-Chlorophenyl)-1,2,4,4a-tetryhydro-2,4-dimethylspiro[[1,4]oxazino[4,3-*a*]quinoline-5(6*H*),5'(2'*H*)-pyrimidine]-2',4',6'(1'*H*,3'*H*)-trione;
- 1,2,4,4a-Tettrhydro-2,4-dimethyl-9-[4-(trifluoromethoxy)phenyl] spiro[[1,4]oxazino[4,3-*a*]quinoline-5(6*H*),5'(2'*H*)pyrimidine]-2'4'6'(1'*H*,3'*H*)-trione;
- 1,2,4,4a-Tetrahydro-9-(methoxyphenyl)-2,4-dimethylspiro[[1,4]oxazino[4,3-*a*]quinoline-5(6*H*),5'(2'*H*)-pyrimidine]-2',4',6'(1'*H*,3'*H*)-trione;
- 9-(3-Chloro-4-fluorophenyl)-1,2,4,4a,-tetrahydro-2,4-dimethylsprio[[1,4]oxazino[4,3-*a*]quinoline-5(6*H*),5'(2'*H*)-pyrimidine]-2',4',6'(1'*H*,3'*H*)-trione;
- 1,2,4,4a-Tetrahydro-2,4-dimethyl-9-(3-nitrophenyl)spiro[[1,4]oxazino[4,3-*a*]quinoline-5(6*H*),5'(2'*H*)-pyrimidine]-2',4',6'(1'*H*,3'*H*)trione;

1,1',2,3',4,4',4a,6'-Octahydro-2,4-dimethyl-2',4',6'-
trioxospiro[[1,4]oxazino[4,3-*a*]quinoline-5(6*H*),5'(2'*H*)-pyrimidin]-9-yl]benzonitrile;
1,2,4,4a-Tetrahydro-2,4-dimethyl-9-[4-(methylsulfonyl)phenyl]
spiro[[1,4]oxazino[4,3-*a*]quinoline-5(6*H*),5'(2'*H*)-pyrimidine]-2',4',6'(1'*H*,3'*H*)-trione;
1,2,4,4a-Tetrahydro-2,4-dimethyl-9-(4-pyridinyl)spiro[[1,4]oxazino[4,3-
a]quinoline-5(6*H*),5'(2'*H*)-pyrimidine]-2',4',6'('H,3'*H*)-trione;
Methyl-1,1'-2,3',4,4a,6'-Octahydro-2,4-dimethyl-2',4',6'-
trioxospiro[[1,4]oxazino [4,3-*a*]quinoline-5(6*H*),5'(2'*H*)-pyrimidine]-9-carboxylate; and
or

Methyl-1,1'-2,3',4,4a,6'-Octahydro-2,4-dimethyl-2',4',6'-
trioxospiro[[1,4]oxazino [4,3-*a*]quinoline-5(6*H*),5'(2'*H*)-pyrimidine]-8-carboxylate.

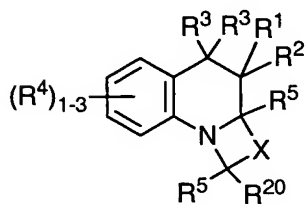
18. (Currently Amended) A The method of claim 20 wherein the compound
comprises selected from





19. (Canceled)

20. (Currently Amended) A method for the treatment of bacterial infections in mammals comprising administration of an effective amount of a compound of claim 1 formula I, including enantiomeric, diastereomeric, or tautomeric isomers thereof, or any pharmaceutically acceptable salt thereof to said mammal;



I

wherein,

R^1 is

- (a) R^{12}
- (b) $C(=O)R^6$, or
- (c) CN ;

R^2 is

- (a) R^{12}
- (b) $C(=O)R^7$,
- (c) CN ,
- (d) $-CH_2-R^7$,
- (e) $-NR^{17}R^7$,

_____ (f) -CH₂COR⁷,

_____ (g) -CH₂CH₂COR⁷;

Each R³ is independently

_____ (a) H,

_____ (b) R¹²,

_____ (c) C₁₋₇ alkyl, C₁₋₇ alkenyl or C₁₋₇ alkynyl each of which is optionally substituted by one or more R¹¹,

_____ (d) C₃₋₈ cycloalkyl, C₃₋₈ cycloalkenyl or C₃₋₈ cycloalkynyl each of which is optionally substituted by one or more R¹¹,

_____ (e) aryl optionally substituted by one or more R⁸,

_____ (f) heteroaryl optionally substituted by one or more R⁸,

_____ (g) halo, or

_____ (h) both R₃ taken together are oxo;

Each R⁴ is independently

_____ (a) H,

_____ (b) halo,

_____ (c) OR¹²,

_____ (d) OC(=O)NR⁹R¹⁰,

_____ (e) SR¹²,

_____ (f) S(O)_mR¹³,

_____ (g) NR⁹R¹⁰,

_____ (h) NR⁹S(O)_mR¹³,

_____ (i) NR⁹C(=O)OR¹³,

_____ (j) phenyl optionally substituted by one or more R⁸,

_____ (k) heteroaryl optionally substituted by one or more R⁸,

_____ (l) cyano,

_____ (m) nitro,

_____ (n) CONR⁹R¹⁰,

_____ (o) CO₂R¹²,

_____ (p) C(=O)R¹³,

_____ (q) C(=NOR¹²)R¹³,

_____ (r) $S(O)_mNR^9R^{10}$,
 _____ (s) $NR^9C(=O)-R^{12}$,
 _____ (t) C_{1-7} alkyl, C_{1-7} alkenyl or C_{1-7} alkynyl each of which is optionally substituted by one or more R^{11} ,

_____ (u) C_{3-8} cycloalkyl, C_{3-8} cycloalkenyl or C_{3-8} cycloalkynyl each of which is optionally substituted by one or more R^{11} ,

_____ (v) N_3 ,

_____ (w) het¹ optionally substituted by one or more R^8 , or

_____ (x) $C(O)O-C_{1-4}$ alkyl- R^{12} ;

Each R^5 is independently,

_____ (a) H,

_____ (b) C_{1-7} alkyl, C_{1-7} alkenyl or C_{1-7} alkynyl each of which is optionally substituted by one or more R^{11} ,

_____ (c) C_{3-8} cycloalkyl, C_{3-8} cycloalkenyl or C_{3-8} cycloalkynyl each of which is optionally substituted by one or more R^{11} ,

_____ (d) aryl optionally substituted by one or more R^8 , or

_____ (e) heteroaryl optionally substituted by one or more R^8 ;

R^6 and R^7 are independently;

_____ (a) OR^{12} ,

_____ (b) NR^9R^{10} ,

_____ (c) R^{13} , or

_____ (e) R^6 and R^7 together with the 2 carbons to which they are attached form cyclohexane-1,3-dione optionally substituted by one or more R^{13} , cyclopentane-1,3-dione optionally substituted by one or more R^{13} , R^6 and R^7 together form $-N(R^{17})-S(O)_m-N(R^{17})-$, $-N(R^{17})-C(O)-N(R^{17})-$, $-N(R^{17})-C(S)-N(R^{17})-$, $-N(R^{17})-N(R^{17})-$, $-N(R^{17})-C(O)-$, or $-N(R^{17})-$, or R^6 and R^7 together form a phenyl ring;

R^8 is

_____ (a) H,

_____ (b) halo,

_____ (c) OR^{12} ,

(d) OCF₃,
(e) SR¹²,
(f) S(O)_mR¹³,
(g) NR⁹R¹⁰,
(h) NR⁹S(O)_mR¹³,
(i) NR⁹C(=O)OR¹³,
(j) phenyl optionally substituted by halo, cyano, C₁₋₇alkyl, or C₁₋₇alkoxy, in the alkyl portion of the C₁₋₇alkyl and C₁₋₇alkoxy is optionally substituted by one or more R¹¹;

(k) heteroaryl optionally substituted by halo, C₁₋₇alkyl, or C₁₋₇alkoxy,
(l) cyano,
(m) nitro,
(n) CONR⁹R¹⁰,
(o) CO₂R¹²,
(p) C(=O)R¹³,
(q) C(=NOR¹²)R¹³,
(r) S(O)_mNR⁹R¹⁰,
(s) NR⁹C(=O)-R¹²,
(t) C₁₋₇alkyl, C₁₋₇alkenyl or C₁₋₇alkynyl each of which is optionally substituted by one or more R¹¹,

(u) C₃₋₈cycloalkyl, C₃₋₈cycloalkenyl or C₃₋₈cycloalkynyl each of which is optionally substituted by one or more R¹¹,

(v) -C(O)H, or
(w) -het¹;

R⁹ and R¹⁰ are independently

(a) H,
(b) OR¹²,
(c) aryl optionally substituted by one or more R¹⁴,
(d) heteroaryl optionally substituted by one or more R¹⁴,
(e) C₁₋₇alkyl which is optionally substituted by one or more R¹¹,
(f) C₃₋₈cycloalkyl which is optionally substituted by one or more R¹¹,

(g) (C=O)R¹³, or
 (h) R⁹ and R¹⁰ together with the nitrogen to which they are attached
form morpholine, pyrrolidine, piperidine, thiazine, piperazine, each of the morpholine,
pyrrolidine, piperidine, thiazine, piperazine being optionally substituted with R¹¹;

R¹¹ is

 (a) oxo,
 (b) phenyl optionally substituted by one or more R¹⁴,
 (c) OR¹²,
 (d) SR¹²,
 (e) NR¹²R¹²,
 (f) halo,
 (g) CO₂R¹²,
 (h) CONR¹²R¹²,
 (i) C₁₋₇ alkyl, C₁₋₇ alkenyl or C₁₋₇ alkynyl each of which is optionally
substituted by one or more oxo, halo, OR¹², SR¹², C₁₋₇alkyl, or NR¹²R¹² substituents, or
 (j) C₃₋₈ cycloalkyl, C₃₋₈ cycloalkenyl or C₃₋₈ cycloalkynyl each of
which is optionally substituted by one or more oxo, halo, OR¹², SR¹², C₁₋₇alkyl, or
NR¹²R¹² substituents;

R¹² is

 (a) H,
 (b) C₁₋₇ alkyl, C₁₋₇ alkenyl or C₁₋₇ alkynyl each of which is optionally
substituted by oxo, halo, C₁₋₇alkyl, or C₁₋₇alkoxy substituents,
 (c) C₃₋₈ cycloalkyl, C₃₋₈ cycloalkenyl or C₃₋₈ cycloalkynyl each of
which is optionally substituted by one or more oxo, halo, C₁₋₇alkyl, or C₁₋₇alkoxy
substituents,
 (d) aryl optionally substituted by one or more halo, C₁₋₇alkyl, or C₁₋
₇alkoxy substituents, or
 (e) heteroaryl optionally substituted by one or more halo, C₁₋₇alkyl, or
C₁₋₇alkoxy substituents;

R¹³ is

(a) C₁₋₇ alkyl which is optionally substituted by one or more by oxo, halo, carboxyl, C₁₋₇alkyl, or C₁₋₇alkoxy substituents,

(b) C₃₋₈ cycloalkyl, C₃₋₈ cycloalkenyl or C₃₋₈ cycloalkynyl each of which is optionally substituted by one or more by oxo, halo, C₁₋₇alkyl, or C₁₋₇alkoxy substituents,

(c) aryl optionally substituted by one or more halo, C₁₋₇alkyl, or C₁₋₇alkoxy substituents;

(d) heteroaryl optionally substituted by one or more halo, C₁₋₇alkyl, or C₁₋₇alkoxy substituents,

(e) -C(O)OH

R¹⁴ is

(a) H,

(b) halo,

(c) C₁₋₇alkyl,

(d) OR¹²,

(e) OCF₃,

(f) SR¹²,

(g) S(O)_mR¹³,

(h) NR¹²R¹²,

(i) NR¹²S(O)_mR¹³,

(j) NR¹²C(=O)OR¹³,

(k) phenyl optionally substituted by halo, C₁₋₇alkyl, or C₁₋₇alkoxy,

(l) heteroaryl optionally substituted by halo, C₁₋₇alkyl, or C₁₋₇alkoxy,

(m) cyano,

(n) nitro,

(o) CONR¹²R¹²,

(p) CO₂R¹²,

(q) C(=O)R¹³,

(r) C(=NOR¹²)R¹³,

(s) S(O)_mNR¹²R¹²,

(t) NR⁹C(=O)-R¹²,

_____ (u) C₁₋₇ alkyl, C₁₋₇ alkenyl or C₁₋₇ alkynyl each of which is optionally substituted by oxo, halo, OR¹², SR¹², C₁₋₇alkyl, or NR¹²R¹² substituents, or

_____ (v) C₃₋₈ cycloalkyl, C₃₋₈ cycloalkenyl or C₃₋₈ cycloalkynyl each of which is optionally substituted by oxo, halo, OR¹², SR¹², C₁₋₇alkyl, or NR¹²R¹² substituents;

X is -C(R¹⁵)₂-O-C(R¹⁵)₂-;

Each R¹⁵ is independently

_____ (a) H,

_____ (b) OR¹¹,

_____ (c) Oxo,

_____ (d) C₁₋₇ alkyl which is optionally substituted by one or more R¹¹

substituents,

_____ (e) C₃₋₈ cycloalkyl, C₃₋₈ cycloalkenyl or C₃₋₈ cycloalkynyl each of which is optionally substituted by one or more R¹¹ substituents,

_____ (f) aryl optionally substituted by one or more R⁸, or

_____ (g) heteroaryl optionally substituted by one or more R⁸;

R¹⁶ is

_____ (a) H

_____ (b) OR¹²,

_____ (c) (C=O)R¹³,

_____ (d) (C=O)OR¹³,

_____ (e) (C=O)NR⁹R¹⁰,

_____ (f) S(O)_mR¹³,

_____ (g) S(O)_mNR⁹R¹⁰,

_____ (h) C₁₋₇ alkyl which is optionally substituted by one or more R¹¹

substituents,

_____ (i) C₃₋₈ cycloalkyl, C₃₋₈ cycloalkenyl or C₃₋₈ cycloalkynyl each of which is optionally substituted by one or more R¹¹ substituents,

_____ (j) aryl optionally substituted by one or more R⁸, or

_____ (k) heteroaryl optionally substituted by one or more R⁸;

R¹⁷ is

- _____ (a) H,
 _____ (b) -OH, or
 _____ (c) C₁₋₄alkyl;

R¹⁹ is

- _____ (a) H,
 _____ (b) OR¹¹,
 _____ (c) Oxo,
 _____ (d) C₁₋₇ alkyl which is optionally substituted by one or more R¹¹

substituents,

_____ (e) C₃₋₈ cycloalkyl, C₃₋₈ cycloalkenyl or C₃₋₈ cycloalkynyl each of
which is optionally substituted by one or more R¹¹ substituents,

- _____ (f) aryl optionally substituted by one or more R⁸, or
 _____ (g) heteroaryl optionally substituted by one or more R⁸;

R²⁰ is

_____ (a) H,
 _____ (b) C₁₋₇ alkyl, C₁₋₇ alkenyl or C₁₋₇ alkynyl each of which is optionally
substituted by one or more R¹¹,

_____ (c) C₃₋₈ cycloalkyl, C₃₋₈ cycloalkenyl or C₃₋₈ cycloalkynyl each of
which is optionally substituted by one or more R¹¹,

- _____ (d) aryl optionally substituted by one or more R⁸,
 _____ (e) heteroaryl optionally substituted by one or more R⁸, or
 _____ (f) R²⁰ and R¹⁹, taken together, form-CH₂-;

_____ wherein, "aryl" denotes a phenyl radical or an ortho-fused bicyclic
carbocyclic radical having about nine to ten ring atoms in which at least one ring is
aromatic;

_____ wherein, "heteroaryl" encompasses a radical attached via a ring carbon or
ring nitrogen of a monocyclic aromatic ring containing five or six ring atoms consisting
of carbon and 1, 2, 3, or 4 heteroatoms, selected from oxygen (-O-), sulfur (-S-),
oxygenated sulfur such as sulfinyl (S=O) and sulfonyl (S(=O)₂), or nitrogen N(Z)
wherein Z is absent or is H, O, C₁₋₄alkyl, phenyl or benzyl, or a radical of an ortho-fused
bicyclic heterocycle of about eight to ten ring atoms derived therefrom;

het¹ is a C- or N- linked five- (5), six- (6), seven- (7), or eight- (8) membered mono- or bicyclic ring, each mono- or bicyclic ring being fully saturated or partially unsaturated, and having 1-4 heteroatoms selected from the group consisting of oxygen, sulfur, and nitrogen; het¹ being optionally substituted by 1-2 substituents selected from C₁-C₄alkyl, amino, C₁-C₄alkylamino, C₁-C₄alkyloxy, halogen -CN, =O, =S;

each m is independently 0, 1, or 2; and

each n is independently 1, 2, or 3.

21. (Currently Amended) The method of claim 20 wherein said compound of ~~claim 1~~ is administered to the mammal orally, parenterally, transdermally, or topically in a pharmaceutical composition.

22. (Original) The method of claim 20 wherein said compound is administered in an amount of from about 0.1 to about 100 mg/kg of body weight/day.

23. (Original) The method of claim 20 wherein said compound is administered in an amount of from about 1 to about 50 mg/kg of body weight/day.

24. (Canceled)

25. (Canceled)

26. (Currently Amended) The ~~composition~~ method of claim ~~25~~ 20 wherein the composition comprises an enantiomerically enriched form of a compound of formula I.

27. (Currently Amended) The ~~composition~~ method of claim 26, wherein the composition comprises at least 50% of one enantiomer of a compound of formula I relative to the other enantiomer of the compound.

28. (Currently Amended) The ~~compositions~~ method of claim 27, wherein the composition comprises at least 80% of one enantiomer of a compound of formula I relative to the other enantiomer of the compound.

29. (Currently Amended) The ~~compositions~~ method of claim 27, wherein the composition comprises at least 90% of one enantiomer of a compound of formula I relative to the other enantiomer of the compound.

30. (Currently Amended) ~~A~~ The method of claim 20 wherein the compound selected from comprises

(2S,4R,4aR)-4-isopropyl-2-methyl-8-nitro-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione;

(2R,4S,4aS)-2,4-diethyl-8-nitro-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione;

(2R,4S,4aS)-2,4-dimethyl-8-nitro-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione;

(2R,4S,4aS)-8-acetyl-9,10-difluoro-2,4-dimethyl-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione;

(2R,4S,4aS)-10-fluoro-2,4-dimethyl-8-nitro-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione;

(2R,4S,4aS)-2,4-dimethyl-8-[5-(trifluoromethyl)-1,2,4-oxadiazol-3-yl]-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione;

1,2,4,4a-Tetrahydro-2,4-dimethyl-8-nitrospiro[[1,4]oxazino[4,3-a]quinoline-5(6H),5'(2'H)-pyrimidine]-2',4',6'(1'H,3'H)-trione;

(2S,4R,4aR)-2-isopropyl-4-methyl-8-nitro-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione;

(2S,4R,4aR)-2-isopropyl-4-methyl-8-nitro-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione;

(2R,4S,4aS)-2,4-diisopropyl-8-nitro-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione;

(2R,4S,4aS)-2,4-dimethyl-8-(3-methyl-1,2,4-oxadiazol-5-yl)-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione;

(2S,4R,4aR)-8-acetyl-10-fluoro-2,4-dimethyl-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione;

8-bromo-2,4-dimethyl-10-nitro-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione;

(2R,4S,4aS)-2,4-dimethyl-8-(5-methyl-1,2,4-oxadiazol-3-yl)-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione;

(2S,4S,4aS)-4-methyl-8-nitro-2-(trifluoromethyl)-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione;

4-azido-3-iodobenzyl (2R,4S,4aS)-2,4-dimethyl-2',4',6'-trioxo-1,1',2,3',4,4',4a,6'-octahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-8-carboxylate; or

(2S,4S,4aS)-2,4-dimethyl-8-nitro-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione.

31. (New) The method of claim 20 wherein:

when each R₄ is H, that R₁ and R₂ are not simultaneously H, CN, or -C(O)-OCH₃ or that R₁ is not CN and R₂ is not -C(O)-OC₁₋₄alkyl;

when the compound is 1,2,4,4a-Tetrahydro-cis-2,4-dimethyl-8-nitrospiro[[1,4]oxazino[4,3-a]quinoline-5(6H), 5' (2' H)-pyrimidine]-2',4',6' (1' H,3' H)-trione that the compound is enantiomerically enriched (-) form of (2R,4S,4aS)-2,4-dimethyl-8-nitro-1,2,4,4a-tetrahydro-2'H,6H-spiro[1,4-oxazino[4,3-a]quinoline-5,5'-pyrimidine]-2',4',6'(1'H,3'H)-trione.

32. (New) The method of claim 20 wherein the compound of formula I is administered as a pharmaceutical composition, wherein the pharmaceutical composition additionally comprises a pharmaceutically acceptable carrier.

33. (New) The method of claim 4 wherein:

R¹ is -C(O)R⁶;

R² is -C(O)R⁷;

each R⁴ is independently selected from H, F and heteroaryl optionally substituted by one or more R⁸;

each R⁵ is H;

R⁶ and R⁷ form -N(R¹⁷)-C(O)-N(R¹⁷)-;

each R¹⁷ is H;

R^{20} is H; and

X is $-C(H)(C_{1-4} \text{ alkyl})-O-C(H)(C_{1-4} \text{ alkyl})-$.

34. (New) The method of claim 33 wherein R^8 is C_{1-7} alkyl.

35. (New) The method of claim 13 wherein:

R^1 is $-C(O)R^6$;

R^2 is $-C(O)R^7$;

each R^3 is H;

each R^4 is independently selected from H, F and heteroaryl optionally substituted by one or more R^8 ;

each R^5 is H;

R^6 and R^7 form $-N(R^{17})-C(O)-N(R^{17})-$;

each R^{15} is C_{1-7} alkyl;

each R^{17} is H; and

R^{20} is H.

36. (New) The method of claim 35 wherein R^8 is C_{1-7} alkyl.